#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-003049 Address: 333 Burma Road **Date Inspected:** 02-Jun-2008

City: Oakland, CA 94607

OSM Arrival Time: 1500 **Project Name:** SAS Superstructure **OSM Departure Time:** 2230 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Tao Lei **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** OBG/Tower

### **Summary of Items Observed:**

On this date, Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) Inspector Edward Leach was present to randomly observe and document the welding and Quality Control (QC) functions performed by ZPMC personnel relative to the fabrication of SAS Superstructure project. While on site, the QA Inspector noted the following work.

### Bay 3-New Tower Building

The QA Inspector randomly observed ZPMC welding and QC personnel performing inspection and in-process grinding of repairs for deck panel Partial Joint Penetration (PJP) welds. During general observations the QA Inspector observed a total of thirty-eight (38ea) deck panels in the shop.

During further observations, the QA Inspector observed deck panels in repair process designated as DP077-001 & DP071-001. The QA Inspector observed personnel also performing grinding at the ends of the closed ribs of these deck panels in the areas where the run off tabs were removed. No repair welding was observed on this date.

## Bay 1-New Tower Building

The QA Inspector observed ZPMC personnel at multiple locations throughout the bay performing various functions with regard to the fabrication of various tower skin plates. During this observation the QA Inspector observed one location where sub-merged arc welding (SAW) was being performed for a Complete Joint Penetration (CJP) weld splice on a 65mm thick skin plate. The QA Inspector identified the material designation as SSD1-SA17A/G-26A and the cover passes for the 720mm weld splice were in process at this time. The welding was being performed by ZPMC welding personnel Chen Hongxia, welder identification 040460 and the electrical welding parameters, travel speed and interpass temperature was being monitored by ZPMC QC personnel Wang

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Sheng. The QA Inspector also observed the welding at this location was being performed to the requirements of welding procedure specification (WPS)-B-T-2221-B-U3c-S-1 & WPS-B-T-2221-B-U3c-S, Revision 1. The QA Inspector reviewed the welding documentation that was recorded by Mr. Wang Sheng along with copies of the noted WPS's. The work in progress appeared to comply with contract specifications.

The following digital images below depict the storage of the five deck panels stored directly on the concrete at the front of the bay, in-process grinding observed on DP077-001 and in-process SAW welding for the CJP weld splice on tower skin plate SSD1-SA17A/G-26A.





## **Summary of Conversations:**

No relevant conversations this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Leach,Ed	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer